

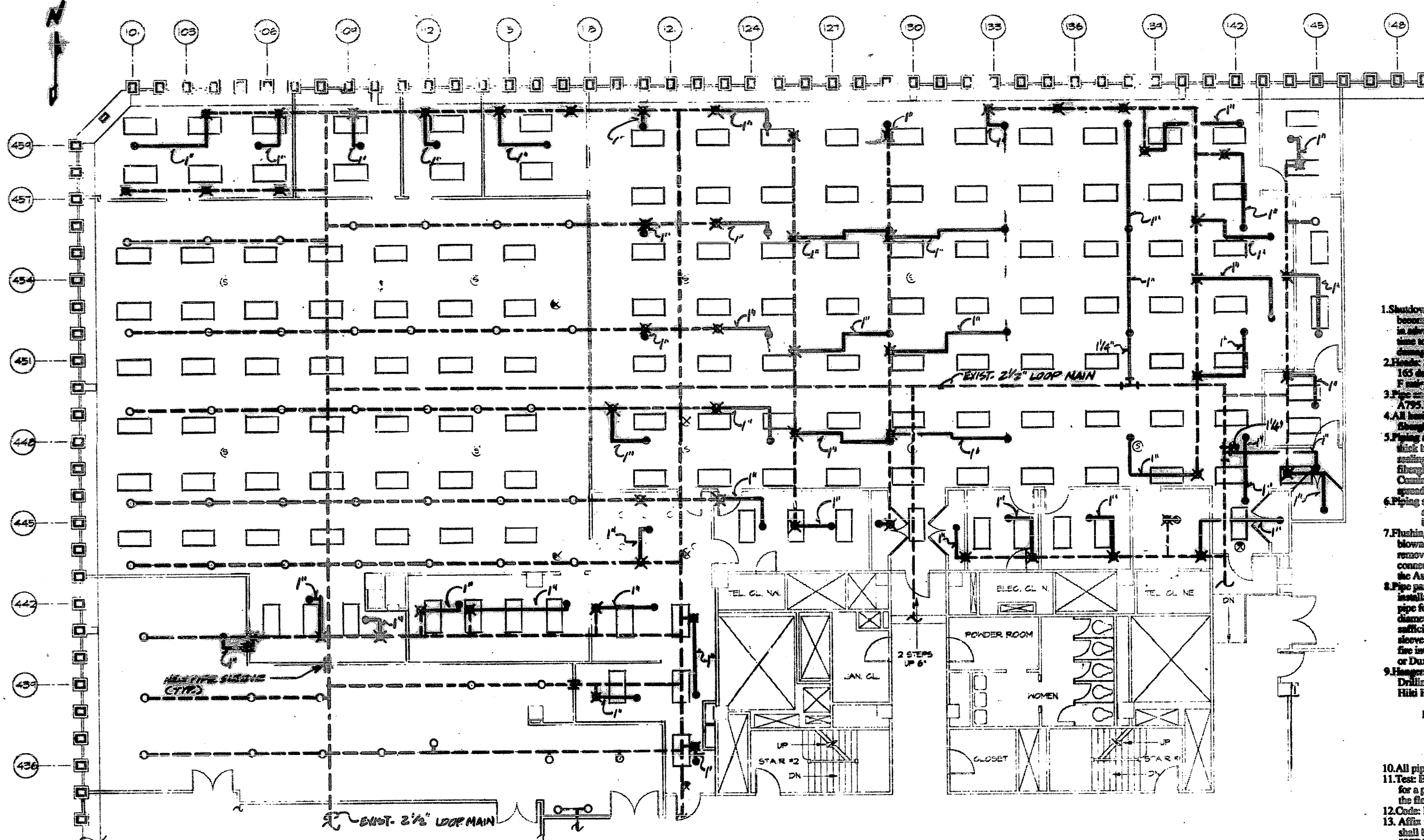
A-1001

DRAWING NUMBER

DATE

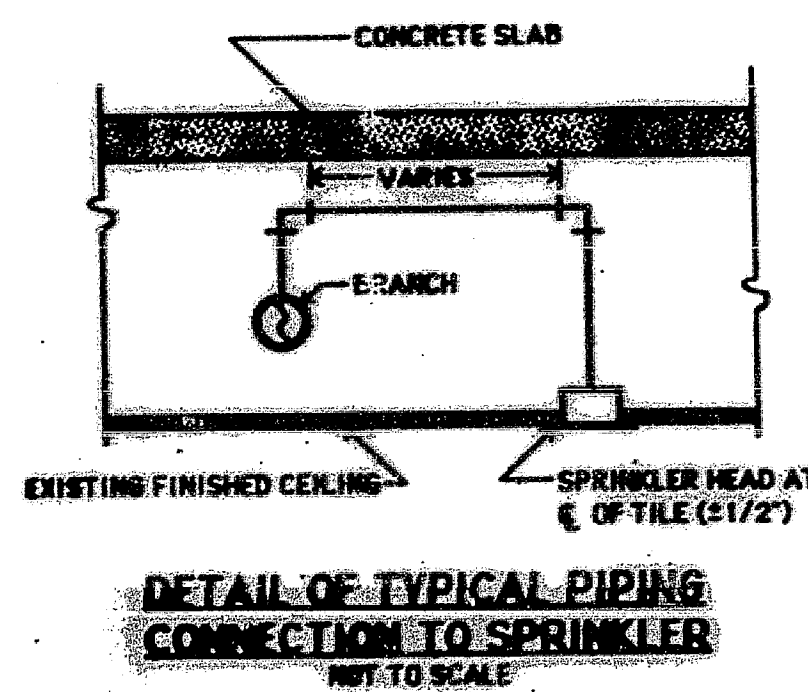
REVISION

WEST STREET



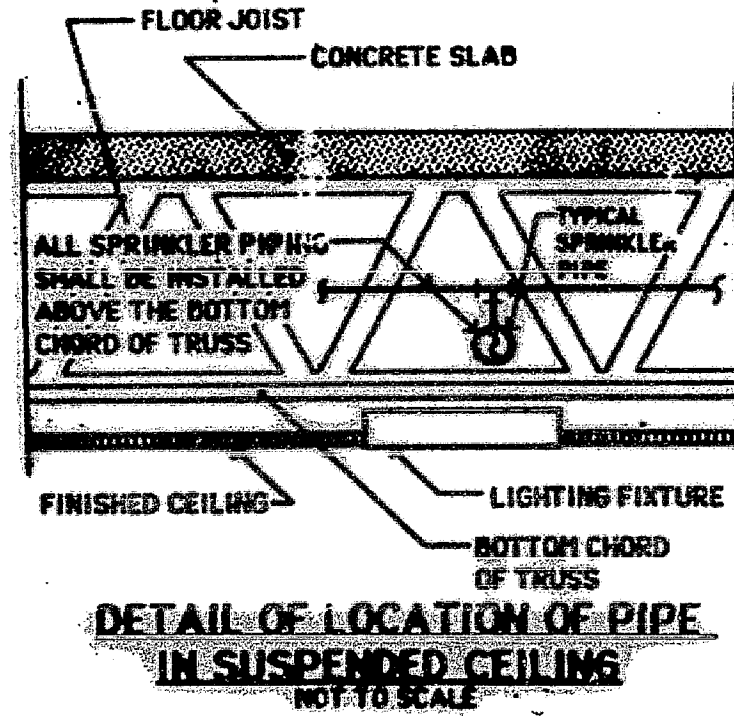
PLAN VIEW

1/8" = 1'-0"



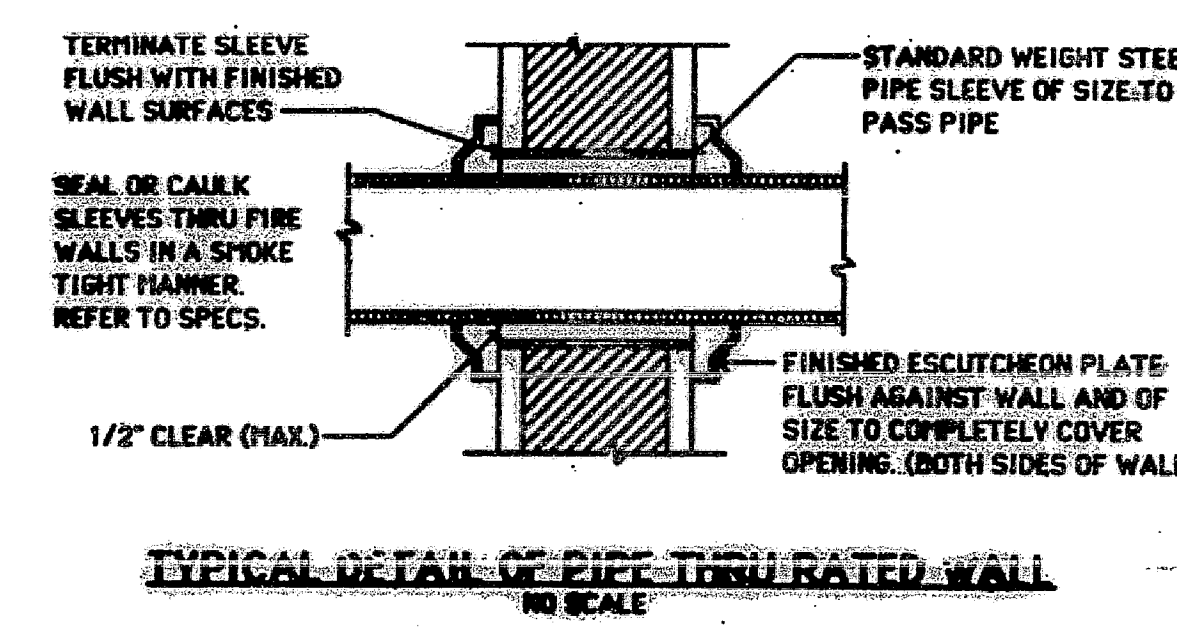
DETAIL OF TYPICAL PIPING CONNECTION TO SPRINKLER

NOT TO SCALE



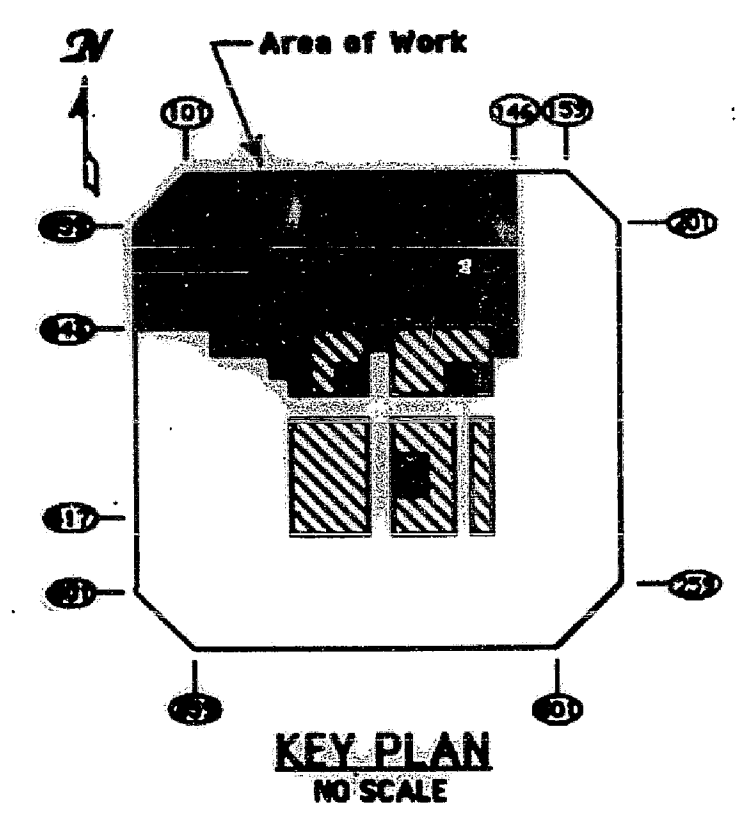
DETAIL OF LOCATION OF PIPE IN SUSPENDED CEILING

NOT TO SCALE



TYPICAL DETAIL OF PIPE THRU RATED WALL

NO SCALE



KEY PLAN

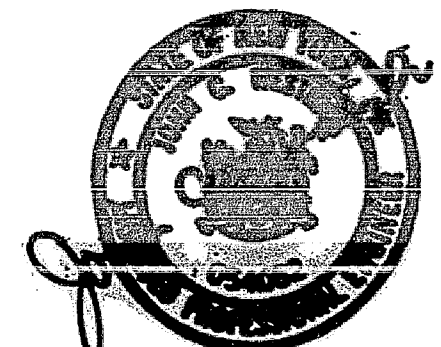
NO SCALE

LEGEND

- NEW CONCEALED SPRINKLER HEAD
- NEW UPRIGHT SPRINKLER HEAD
- EXISTING SPRINKLER HEAD TO REMAIN
- EXISTING SPRINKLER HEAD TO BE REMOVED OR RELOCATED
- NEW SPRINKLER PIPING
- EXISTING SPRINKLER PIPING TO REMAIN

SPRINKLER SPECIFICATIONS

- Shutdown of existing system: At the time that such closing or opening of valves and draindown becomes necessary, the Contractor shall notify the WTC Construction Division (or least 48 hours in advance) who will make the necessary arrangements. The Contractor shall keep the shutdown time to a minimum and drainage shall be to a properly connected receptacle without causing damage to other work and property.
 - Head: Sprinkler heads shall be Reliable Automatic Sprinkler Co. concealed type Model "G4", 165 degree F rating, 1/2" orifice Pendent chrome and Model "G" standard upright, 165 degree F rating, 1/2" orifice for Manual room against a pendent.
 - Pipe: Sprinkler piping shall be Schedule 40, standard weight, black steel pipe, ASTM standard A795. Piping shall be cast iron, 175 lbs. class threaded.
 - All horizontal piping parallel to and within 12'-0" of exterior walls shall be insulated with 1" R-10 insulation.
 - Pipe and fittings shall be installed where required by the contract drawings with one inch (1") thick heavy density fibreglass pipe covering with factory applied all service jacket (ASJ), self-sealing lap and heat edges bonded with aluminum straps (2" on centers), and premoiled fibreglass for fittings. Insulation shall be similar in all respects to that manufactured by Owens-Corning Fibreglass. Insulation (including jacket or facing and adhesive) shall have a flame spread rating not greater than 25, smoke developed rating 50.
 - Piping shall be installed to drain back to flow control valve.
 - Flushing: Before final connections and sprinkler heads are installed, all piping shall be thoroughly blown out, soaked out, and washed out at least twice in a manner as directed by the Engineer to remove all accumulation of dirt, chips or other deleterious material. Make all temporary connections and furnish all appliances required for the purpose of cleaning at no extra expense to the Authority.
 - Pipe passing through walls shall have a trim opening not greater than necessary for the installation of a sleeve secured therein. Sleeves shall be made of Schedule 40 galvanized steel pipe for floor slabs and 20 gauge sheet metal for framed partitions. Sleeves shall be 1/2" in diameter larger than the outside diameter of the pipe or required insulation passing through, and of sufficient length to be flush with the finished wall surface. Annular spaces between piping and sleeves or core drilled floor openings shall be packed with thermalite and sealed to retain the fire integrity of the walls and floors with a non-hardening compound similar and equal to Unifast or Duxseal as manufactured by Johns Manville Co.
 - Hangers: Insulate hanger type hangers supported from the existing building steel framing. Drilling/anchoring systems will be permitted. Drilling only when approved by the Engineer. Use Hilti HDU anchors.
- | Pipe Size | Max. Hanger Spacing | Min. Rod Size |
|--------------|---------------------|---------------|
| 1" | 8'-0" O.C. | 3/8" |
| 1 1/4" to 1" | 10'-0" O.C. | 3/8" |
| 2 1/2" to 3" | 12'-0" O.C. | 1/2" |
- All piping shall be installed above the bottom chord of the trusses.
 - Test: Entire installation shall be tested hydrostatically and remain tight with no loss of pressure for a period of no less than two (2) days against a pressure of 200 psig. Remaining portion of the floor system shall be isolated from the testing procedure.
 - Code: Entire installation shall comply with all provisions of the NYC Building Code.
 - Affix identification markers on all sprinkler piping. Markers shall be at 10' - on centers. Markers shall be Brady Snap-On, Type 8, W.H. Brady Co. Sign Mark Division, Markers shall read "SPRINKLER PIPING".
 - Disturbance of structural components shall be kept to a minimum and protection shall be observed for work above the ceiling.
 - Contractor shall submit detailed shop drawings to the Engineer for approval. No work shall commence until approval is obtained.
 - All unused piping, ductwork, hangers, supports, shall be completely removed all the way back to the core floor close, or back to the nearest branch main and capped, sealed watertight or airtight. All the openings shall be properly patched, sealed, and fire stopped to maintain the original integrity of the partition's fire rating.
 - Contractor shall provide a hydraulic calculation to verify pipe size. The hydraulic calculation shall include:
 - available static pressure on the floor.
 - the minimum water supply requirement density, gpm per square foot.
 - area of hydraulic demand.
 - occupancy hazard classification.
 - sprinkler rating and fittings material.
 - all existing piping sizes.
 - All sprinkler heads shown to remain refers to location only. All concealed type heads either existing or relocated shall be replaced with the new "Reliable" Model G4, 165° F rating, see specifications above.



REV. NO.	REVISED	PER	P.A.	COMMENTS	DATE
1					6-1-92
Canfor Fitzgerald Securities One World Trade Center Floor 104 New York, NY 10048					
SPRINKLER PLAN & SPECIFICATIONS					
John C. Westrick & Associates CONSULTING ENGINEERS 2110 JAMES AVENUE SOUTH PLAINFIELD, NJ 07080 (908) 841-4170 Fax (908) 763-0584					
SCALE: AS NOTED	DATE: 3-13-92	OWN BY: PE	CHG BY: JCW	JOB NO. 92/13-R	SP-1